

Ecology Concepts and Vocabulary 2014

In this Ecology Unit, students will develop an understanding of ecosystems and how different populations of organisms interact. The goal of our study is to help students to develop an appreciation and respect for our natural world and to understand that a variety of factors, including human activities, have an impact on the ecosystem we all live in.

Vocabulary –Living Things and the Environment (Pages 6-11)

Organism - a living thing.

Habitat - An environment that provides all the things an organism needs to live, grow, and reproduce. *A place where several groups of different species interact.*

Biotic Factor - A living part of an organism's habitat. *For example, grass is a biotic factor for a rabbit because it is a living thing the organism interacts with by eating it.*

Abiotic Factor - A nonliving part of an organism's habitat. *For example, water is an abiotic factor because it is a nonliving part of a habitat that is necessary for survival.*

Photosynthesis - The process in which plants use water along with carbon dioxide and sunlight to make their own food.

Species – A group of organisms that are physically similar and can produce offspring.

Population - All the members of one species in a particular area. *For example, all the bluebirds living around Bicentennial Pond make up a population.*

Community - All the different populations that live in a particular area. *For example, the bluebirds, beavers, squirrels and turtles around Bicentennial Pond make up a community.*

Ecosystem - All the organisms **and** the nonliving parts of their environment in a particular area.

Ecology - the study of how living things interact with each other and their environment.

Vocabulary – Studying Populations (pages 13-20)

Limiting Factor - An environmental factor that causes a population to decrease or remain the same. *For example, if there is not enough food, then a population of deer will be reduced. Lack of food, water, or shelter would be a limiting factor.*

Population Density – The number of individuals in a specific area.

Carrying Capacity – The largest population that an area can support.

Vocabulary – Interactions Among Living Things (pages 24-31)

Adaptation - A behavior or physical characteristic that allows an organism to live successfully in its environment

Competition – A struggle between organisms to survive as they attempt to use the same limited resource.

Predator - An organism that kills another for food (obtains energy by feeding on other organisms)

Prey - An organism that is killed and eaten by another organism.

Symbiosis - An interaction between two organisms which benefits at least one.

Mutualism – A relationship between two species in which both species benefit.

Commensalism – A relationship between two species in which one species is helped while the other is neither harmed nor helped.

Parasitism – a relationship in which one organism lives on or inside the host organism and harms it.

Vocabulary – Energy Flow in Ecosystems (pages 42-47)

Producer - An organism that can make its own food.

Consumer - An organism that feeds on other organisms to obtain energy.

Decomposer - An organism that breaks down wastes and dead organisms and returns raw materials to the ecosystem.

Food Chain – A series of events in which one organism eats another and obtains energy.

Food Web – The pattern of overlapping food chains in an ecosystem.

Herbivore - A consumer that only eats plants.

Carnivore – A consumer that only eats meat.

Omnivores – A consumers that eats both plants and animals.

Scavenger - A carnivore that feeds on the bodies of dead organisms.

Other Vocabulary

Biodiversity - The variety of life in the world or in a particular habitat or ecosystem.

Interdependence – The quality or condition in which organisms rely on one another for basic needs.